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To: Commissioner for Patents for Examiner Charles A. Fox Group Art Unit 3652	Facsimile No.: 703/872-9306
From: Carrie Parker Legal Assistant to Betty Formby	No. of Pages Including Cover Sheet: 20
Message: Enclosed herewith: <ul style="list-style-type: none">• Transmittal Document; and• Appeal Brief.	
Re: Application No. 10/033,879 Attorney Docket No: 00-073-TAP	
Date: Wednesday, January 12, 2005	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Smith et al.

Serial No.: 10/033,879

Filed: December 19, 2001

For: Online, Safe Service Technique
for Automated Libraries§
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§

Group Art Unit: 3652

Examiner: Charles A. Fox

Attorney Docket No.: 00-073-TAP

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By:	<u>Carrie Parker</u> Carrie Parker

TRANSMITTAL DOCUMENTCommissioner for Patents
P.O. Box 1450
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- Appeal Brief (37 C.F.R. 41.37).

A fee of \$500.00 is required for filing an Appeal Brief. Please charge this fee to Storage Technology Corporation Deposit Account No. 19-4545. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to Storage Technology Corporation Deposit Account No. 19-4545. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to Storage Technology Corporation Deposit Account No. 19-4545.

Respectfully submitted,

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JAN 12 2005 PATENT

Docket No. 00-073-TAP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Smith et al.**

Serial No. **10/033,879**

Filed: **December 19, 2001**

For: **Online, Safe Service Technique
for Automated Libraries**

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Group Art Unit: **3652**

Examiner: **Charles A. Fox**

Commissioner for Patents
P.O. Box 1450
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By:

Carrie Parker
Carrie Parker

APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on November 12, 2004.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

(Appeal Brief Page 1 of 18)
Smith et al. - 10/033,879

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: Storage Technology Corporation.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS**A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application are: 1-21

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: 7-21
3. Claims pending: 1-6
4. Claims allowed: None
5. Claims rejected: 1-6

C. CLAIMS ON APPEAL

The claims on appeal are: 1-6

STATUS OF AMENDMENTS

No amendments have been submitted since the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER**A. CLAIM 1 - INDEPENDENT**

The subject matter of claim 1 is directed to a safety system for a media library having computer-controlled robots that move within an enclosure to carry media from one location to another. The safety system is necessary when a human enters or accesses the enclosure to perform maintenance or repairs. A section of a library is shown in **Figure 1**, discussed in the section from page 5, line 4 through page 7, line 20, while **Figures 2, 3 and 4** show different configurations of exemplary libraries and demonstrates various types of access openings. These figures are discussed on pages 7, line 21 through 8, line 24. The claimed safety system has an access sensor (not specifically shown) that detects if the access means in the enclosure is open (discussed on page 9, lines 5-14) and a control component (not specifically shown) that operates the robots in two modes. If the access means is closed, the picker robots are automatically driven at a first specified speed, but when the access means is opened, the picker robots are automatically driven at a second speed that is non-zero and is slower than the first speed of the normal mode. The process by which the speed is changed is discussed on page 9, line 5 through page 11, line 11.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL**A. GROUND OF REJECTION 1 (Claims 1-6)**

Claims 1-6 stand rejected under 35 U.S.C. § 103 as obvious over applicant's disclosure of a media library in view of Fairman *et al.* (U.S. Patent Application No. 20020009512) and Priestley *et al.* (U.S. Patent No. 6,405,114).

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1-6)

Claims 1-6 stand rejected as obvious over applicant's disclosure of a media library combined with Faiman and Priestley. Independent claim 1, on which the other rejected claims are dependent, states,

1. (Previously presented) A safety system for a media library comprising a plurality of media storage cells and at least one media picker robot that moves along the media storage cells, wherein the library is contained within an enclosure having at least one access means, the safety system comprising:
 - an access sensor that detects if the access means in the enclosure is open;
 - and
 - a control component that operates the robot in the media library in one of the following modes:
 - if the access means is closed, a normal mode, wherein the picker robot automatically moves at a first specified speed; and
 - if the access means is open, a safe mode, wherein the picker robot automatically moves at a second specified speed that is a non-zero speed and is slower than the first speed of the normal mode.

Applicants submit that there are multiple problems with the current rejection, each of which alone should be enough to overturn the rejection. Each of the following problems will be separately addressed:

- Faiman does not show what it is reputed to show;
- Priestly does not show what it is reputed to show;
- The motivation relies on hindsight from the instant application.

The first two of the problems addressed in this brief, i.e., that neither Faiman nor Priestly show what they are reputed to show, deal with the initial burden of providing a *prima facie* basis of rejection. Concerning art rejections, the Federal Circuit has noted,

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984).

In response to an assertion of obviousness by the Patent Office, the applicant may attack the Patent Office's *prima facie* determination as improperly made out, present objective evidence tending to support a conclusion of nonobviousness, or both. *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992).

If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

Thus, an argument must be presented and supported by the Patent Office to show that the elements of the claimed invention are present in the prior art. The following two sections provide evidence that the art relied on in this rejection does not support the assertion of obviousness.

Faiman does not show what it is reputed to show

Regarding Faiman, the rejection states,

Faiman et al. US 2002/0009512 teaches a device with a safety interlock comprising:

- a door (32) covering the moving part of a press machine (19);
- a sensor on said door for detecting if the door is open or closed;
- a control device that operates the device in the following modes:
 - a first mode where the door is closed and the device moves at a first specified speed;
 - a second mode where the door is open and the device moves at a second specified speed that is slower than said first specified speed;
- wherein the speed reduction is set via a command to a controller or through changes in power to a variable frequency drive motor;
- wherein the door sensor operates only in said second mode if said door is open.

Table 1 below was created according to the description above and shows the possible modes, door position, and speeds that the rejection attributes to Faiman. Stripped to the basics of what the rejection states, it appears that the speed in Faiman is closely tied to the position of the door. While the rejection does not explicitly state that the speed is dependent on the door position, that is implied by the fact that this patent is read on the claim, which does explicitly stated this dependence.

Mode	Door (safety cover)	Speed
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First	Closed	Regular
Second	Open	Slower

Table 1

Looking now to Faiman itself, this application describes its operation thus,

[0021] In one preferred embodiment of the present invention, the mode control 57 is used to choose either a set up mode or a run mode. The set up mode may also be referred to as a JOG mode. In the run mode, the variable frequency drive controller 40 runs the rotary drive 46 at the speed set by the parameter control buttons 50. However, the variable frequency drive controller 40 only allows the rotary drive to run if the safety cover interlock 44 indicates that the safety cover is closed. ... The drive controller 40 begins running the rotary drive 46 when the operator presses the run control or button 52. The drive controller 40 stops the rotary drive 46 if the operator presses the stop button 54 or opens the safety cover [c.g., automatic control] ...

[0022] In the set up or jog mode, the variable frequency drive controller 40 operates differently. ... In the setup mode, the variable frequency drive controller rotates the rotary drive 46 at a speed lower than the first range of speeds previously discussed when the operator depreccses the run control button 52. However, rotation of the rotary drive 46 continues only when the run control button 52 is depressed [e.g., manual control]. If the operator releases the button, the rotation stops. ... Also, the variable frequency drive controller 40 allows the safety cover to be open while in setup mode. That is, the safety cover interlock 44 can indicate that the cover is closed or not closed and the drive controller will allow operation of the press at the slow jog speed.

Table 2 on the next page was created according to the description above and shows the possible speeds and control (auto/manual) with the different combinations of mode and cover position. Faiman effectively presents three possibilities for speed and control. The machine can only run at the higher range of speeds (first speed) when the machine is in the 'run' mode and the safety cover is closed. When the machine is in the 'run' mode and the cover is open, the machine will not operate at any speed, for safety reasons. However, when the machine is in the 'jog' mode, it does not matter whether the safety cover is open or closed; the machine can only be run at slow speed and under manual control.

Mode	Safety cover	Speed	Auto/manual
Run	Closed	Higher range	Auto
Run	Open	None	None
Jog (Setup)	Closed	Slow	Manual
Jog (Setup)	Open	Slow	Manual

Table 2

Comparing the two tables, it is clear that the attributed dependence of speed on door position does not hold up under close inspection. Rather, in Fairman, the speed is dependent on the mode setting, with the door acting as a safety device to prevent any operation when the machine is in run mode but the door is open.

Thus, Fairman does not show what was attributed to this reference; the rejection should be overturned for this reason alone.

Priestly does not show what it is reputed to show

Regarding Priestly, the rejection states,

The admitted prior art and Fairman et al. do not teach the second operating speed as being set automatically once the interlock is triggered. Priestly et al. US 6,405,114 teach a device with an interlock system comprising:
a drive motor for wheels;
interlocks for determining if a boom is in a lowered position or not;
whereby if the boom is in the lowered position said device travels at a first speed;
whereby if said boom is not in the lowered position said interlocks limit the speed of the device to a second speed that is non-zero and slower than said first speed.

Thus, Priestly is asserted to show that the speed is controlled automatically. However, if we look to what Priestly states about the speed of the device as it is affected by the interlock mechanism on the boom, we read,

To power one or more of the wheels 102 to operate the drive and steer functions of the apparatus, there is also a series of interlocks that must be in place. In particular, it is required that the platform emergency stop switch 212

be set or pulled out and the platform foot switch interlock 214 must be set or depressed. When these two interlocks are made, the operator may select and activate the drive or steer functions of the apparatus. All drive motion is controlled by a drive control joystick 224 on the platform control panel 300. The control joystick 224 proportionately controls the drive speed in two separate ranges, low range and high range. The drive speed range is selected by pressing a drive range switch 304 on the platform control panel 300. The high range speed can only be activated when the boom is cradled and a boom cradle interlock switch is closed to indicate that the boom is in the cradled position and an angle sensor indicates that the slope angle on which the platform rests is less than five degrees. The boom cradle interlock switch and/or the angle sensor constitute a position detector circuit or, if implemented in software, constitute a position detector subroutine.¹

As shown in the underlined section above, changing the drive speed range is a manual operation; the boom must be cradled and the operator must press a switch. Thus, this is not an automatic response; rather it must be a conscious decision on the part of the operator.

The arguments above were presented in the response to the final office action of 08/11/04. In the advisory action mailed 12/02/04, the action stated,

As far as Priestly not being automatic, the last line of the passage cited in applicants arguments priestly [sic] teaches implementing a software routine to constitute a position detector which speed is based upon. That requires no human input to perform and is considered automatic by the examiner.²

Regarding the advisory action, applicants submit that the statement above is not responsive to applicant's assertions. The original rejection asserts that Priestly "teach the second operating speed as being set automatically once the interlock is triggered". Applicants then asserted that Priestly does not set the second speed automatically; it must be set by pressing a button, as shown above. Whether or not Priestley has an automatic detector is not the question; the question is whether the detector automatically sets the speed. Priestley does not show that the speed is automatically set. Priestley states that the operator must push a button.

Thus, Priestley does not show what it is asserted to show. The rejection should be overturned for this reason alone.

¹ Priestly, column 8, line 36-56

² Advisory action of 12/02/2004, page 2, lines 2-4

The motivation relies on hindsight from the instant application

For an obviousness rejection, there must be a reason to combine the separate pieces of art that are relied on. While the motivation does not need to be the same as that shown by the inventors, the Federal Circuit has ruled,

A prima facie case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993).

The Federal Circuit has further noted,

In determining obviousness, an applicant's teachings may not be read into the prior art. *Panduit Corp. v. Denison Mfg. Co.*, 810 F.2d 1561, 1575 n. 29, 1 U.S.P.Q. 1593, 1602 n. 29 (Fed. Cir. 1987) (citing need to "guard against hindsight and the temptation to read the inventor's teachings into the prior art"). A determination of the desirability of combining prior art references must be made without the benefit of hindsight afforded by an applicant's disclosure. *In re Paulsen*, 30 F.3d 1475, 1482, 31 U.S.P.Q. 1671, 1676 (Fed. Cir. 1994).

Looking at the motivation to combine Faiman and Priestley with the applicant's disclosure of a prior art media library, the office action states,

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the admitted prior art with a safety interlock as taught by Faiman et al. in order to keep the operator from being hurt by the device while working in the enclosure and to further automate the speed reduction as taught by Priestley et al. in order to keep an operator from overriding the safety interlocks and operating the device in a dangerous manner.

The arguments above have shown that Faiman and Priestley do not show automatically reducing the speed of a device when a safety device is triggered (although they do show preventing any movement). Neither do these references discuss the use of such a safety interlock in a media library. It is submitted that these references cannot suggest adding automatic speed reduction to a media library if the references themselves do not disclose automatic speed reduction.

These references discuss systems that are very different from the disclosed media library. The systems of Faiman and Priestley do not require a person to provide repairs to the machine

itself while the machine is running. It is therefore asserted that the motivation to combine these references has not come from anything suggested in the art relied on. Rather, the only reference that is seen to provide this motivation is applicant's disclosure, from which one can, in hindsight, see the need for automatic speed reduction when a safety latch is open.

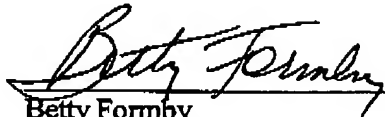
Thus, the motivation suggested has not come from the prior art. The rejection should be overturned for this reason alone.

CONCLUSION

Applicants have provided three reasons why the obviousness rejection over applicant's disclosure of a media library in view of Faiman and Priestley should be overturned:

- Faiman does not show what it is reputed to show;
- Priestly does not show what it is reputed to show;
- The motivation relies on hindsight from the instant application.

The Board of Appeals is respectfully requested to overturn all rejections and allow all claims in this rejection.


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CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. A safety system for a media library comprising a plurality of media storage cells and at least one media picker robot that moves along the media storage cells, wherein the library is contained within an enclosure having at least one access means, the safety system comprising:

an access sensor that detects if the access means in the enclosure is open; and

a control component that operates the robot in the media library in one of the following modes:

if the access means is closed, a normal mode, wherein the picker robot automatically moves at a first specified speed; and

if the access means is open, a safe mode, wherein the picker robot automatically moves at a second specified speed that is a non-zero speed and is slower than the first speed of the normal mode.
2. The system according to claim 1, wherein:

the access sensor also detects if the access means is locked; and

the control component operates the robot in safe mode only if the access means is unlocked.
3. The system according to claim 1, wherein the slower robot speed of the safe mode is implemented by means of control software that reduces power to robot.
4. The system according to claim 1, wherein the slower robot speed of the safe mode is

implemented by means of an electrical circuit that limits power to the robot.

5. The system according to claim 1, wherein the media library further comprises a plurality of picker robots that are responsive to the control component.

6. The system according to claim 1, wherein the media library further comprises a plurality of access means associated with the access sensor.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.